

VTF 2006

VIA Technology Forum

VIA pc-1 Initiative: Enabling
the next 1 billion

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VIA Technologies, Inc.



*Embracing
Digital Intelligence*

Global PC & Internet Usage Realities

- **Less than 20% of the global population has access to PCs & the Internet**
 - Vast majority in developed markets
- **Huge appetite for PCs & the Internet in Emerging Markets**
 - Key to unleashing national and individual capabilities
- **Massive opportunity for the PC Industry**
 - Still searching for the right model to take advantage of it

VIA pc-1 Vision

- Taking next generation technology beyond the confines of the traditional PC into:



New Markets



New Environments



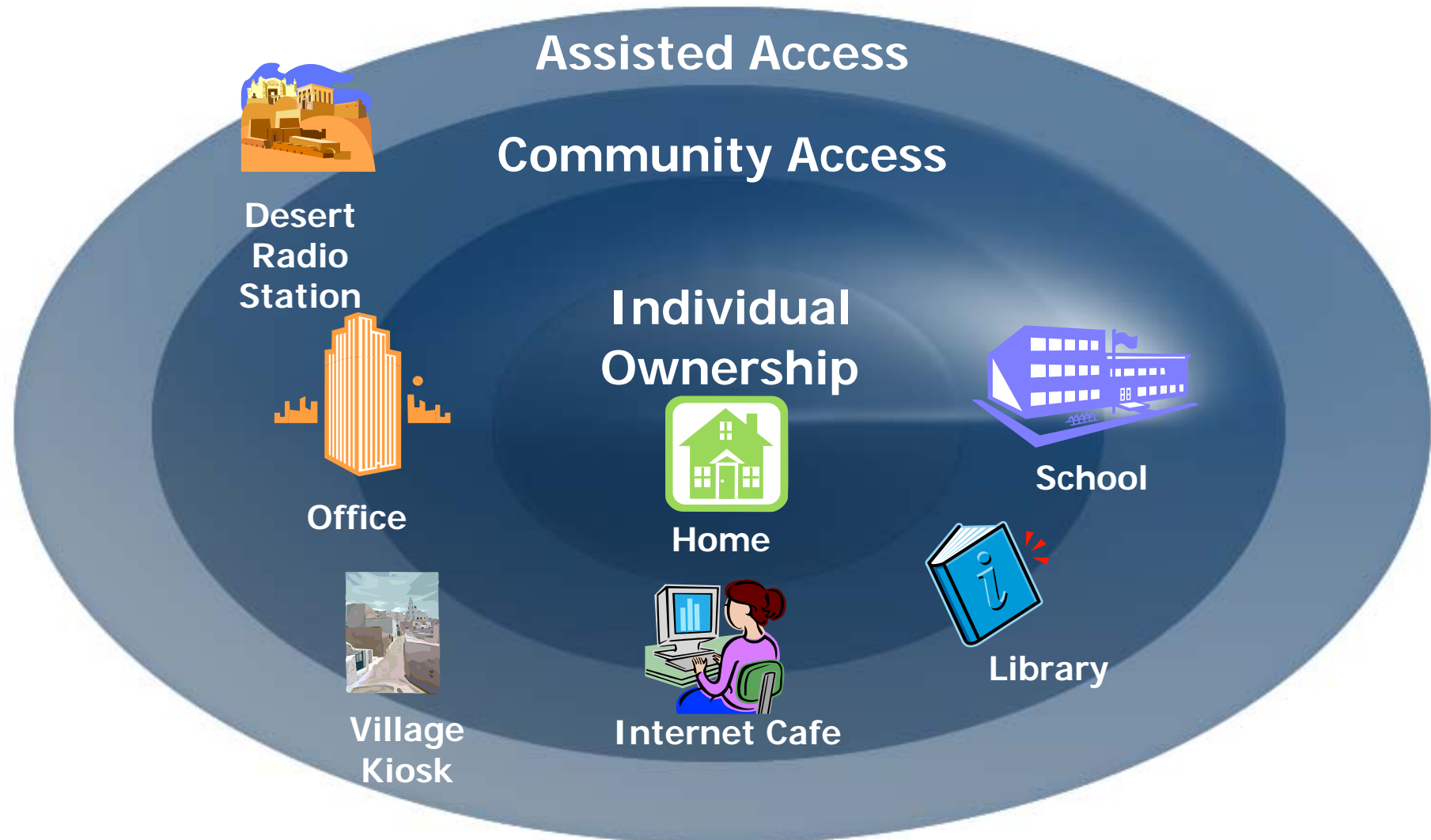
New Usage Models



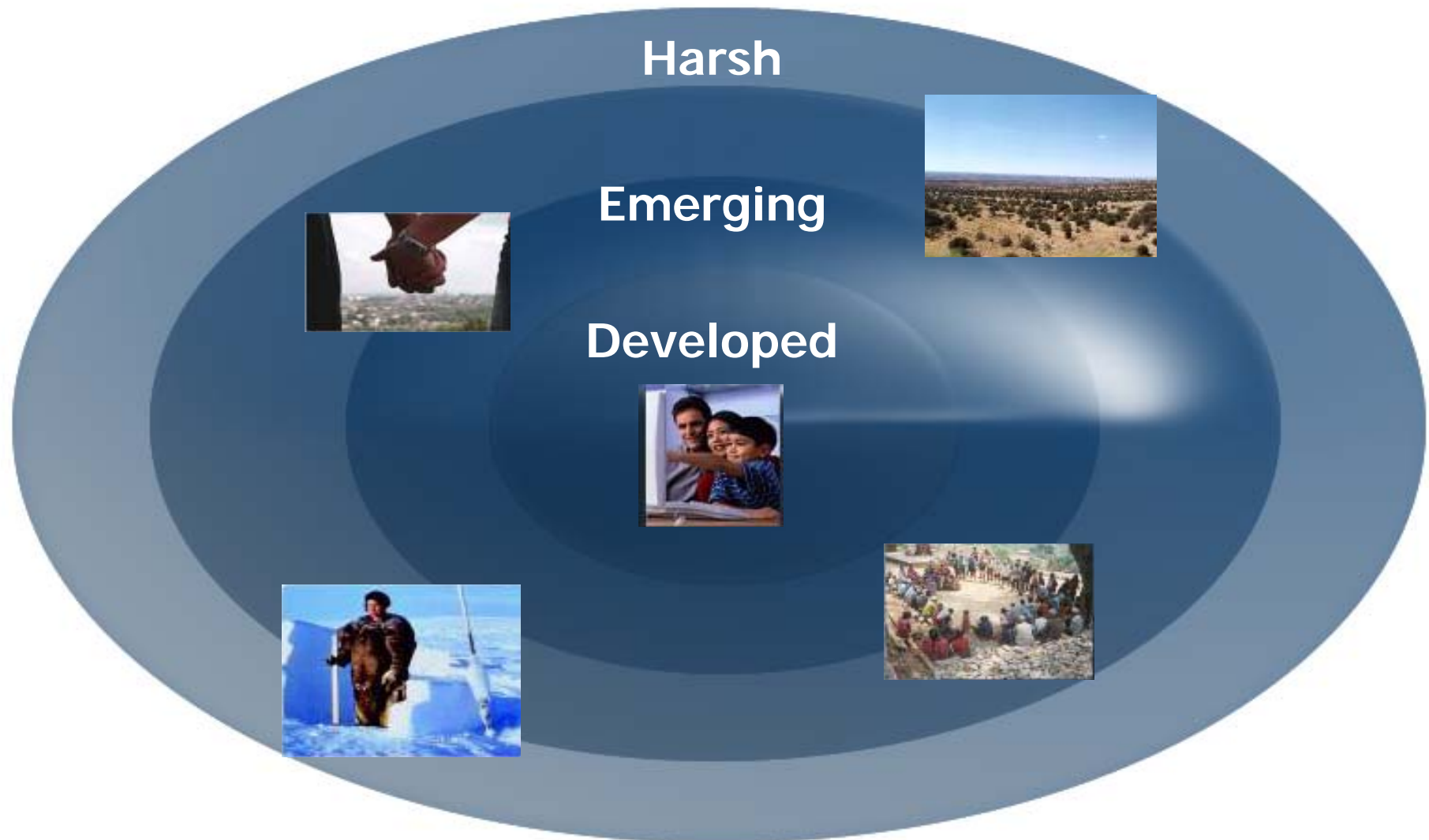
New Products

.....to enable the next 1 billion users

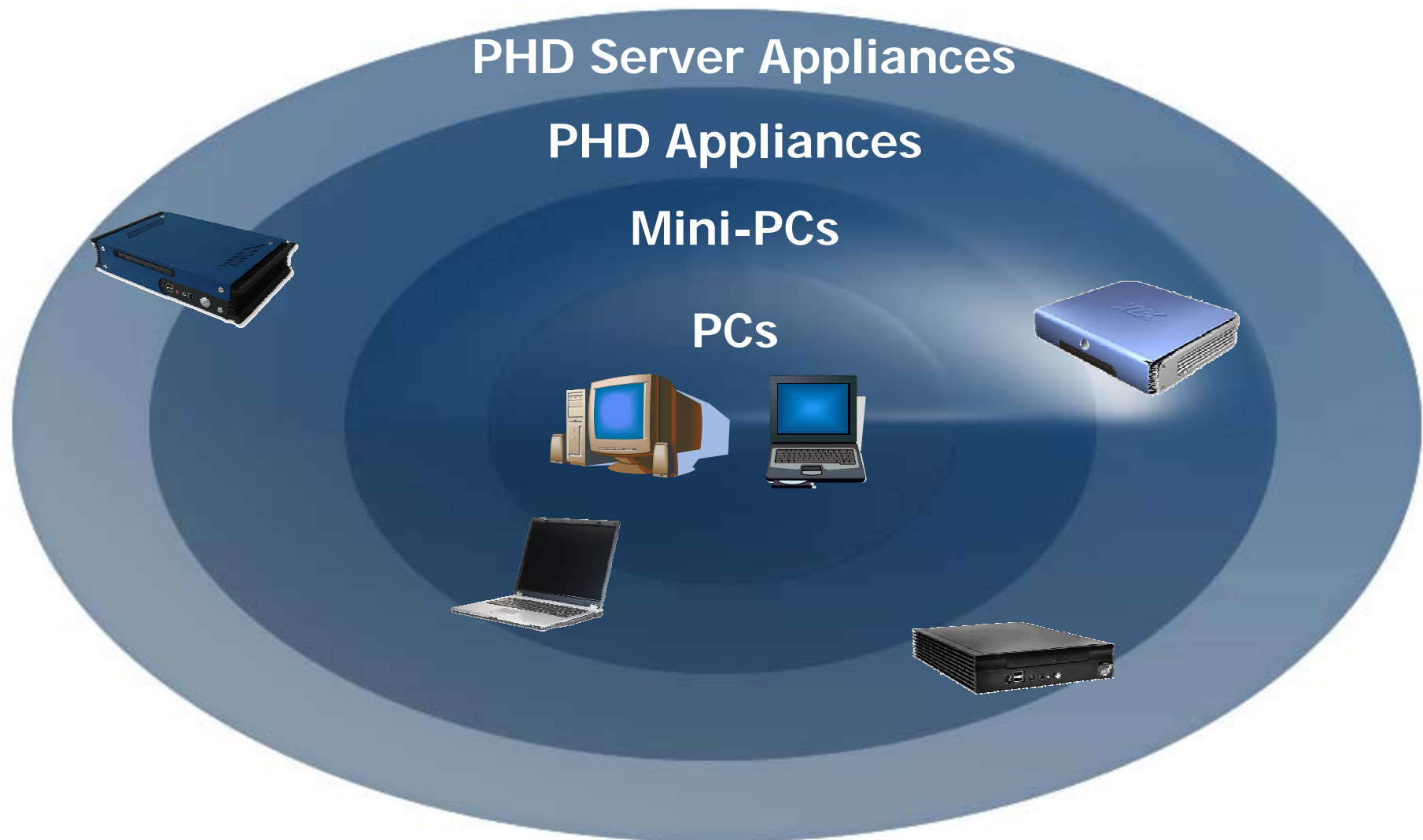
New Markets: Beyond Ownership to Access



New Environments: From City Comforts to Rural Remoteness



New Products: From PCs to PHD Server Appliances



New Technical Challenges



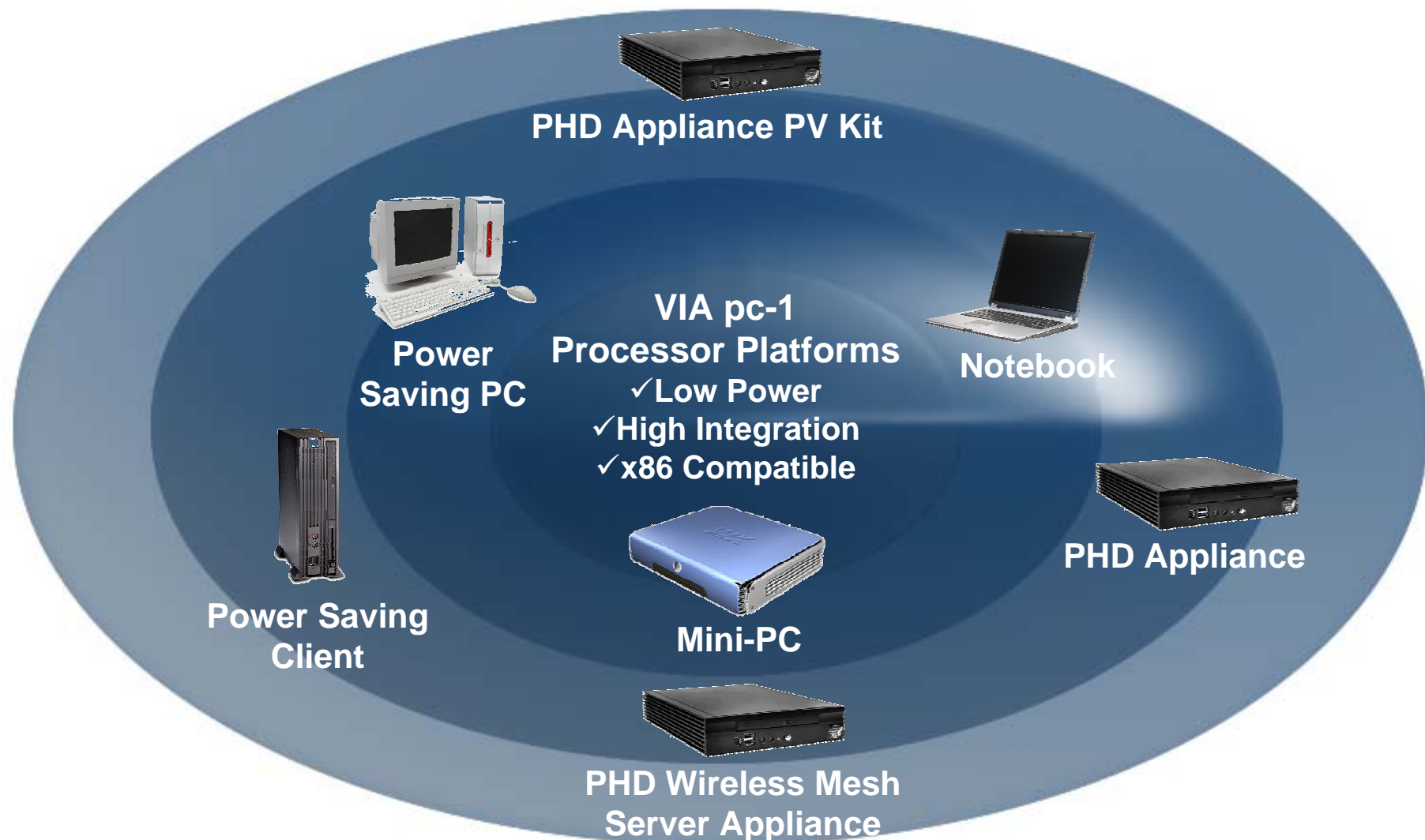
New Deployment Challenges



VIA pc-1 System Platform Architecture Highlights

- **Sustainable & highly scalable system platform architecture optimized for the needs of Emerging Markets**
 - Power Saving
 - x86 Compatible
 - Robust
 - Flexible

VIA pc-1 System Platform Architecture



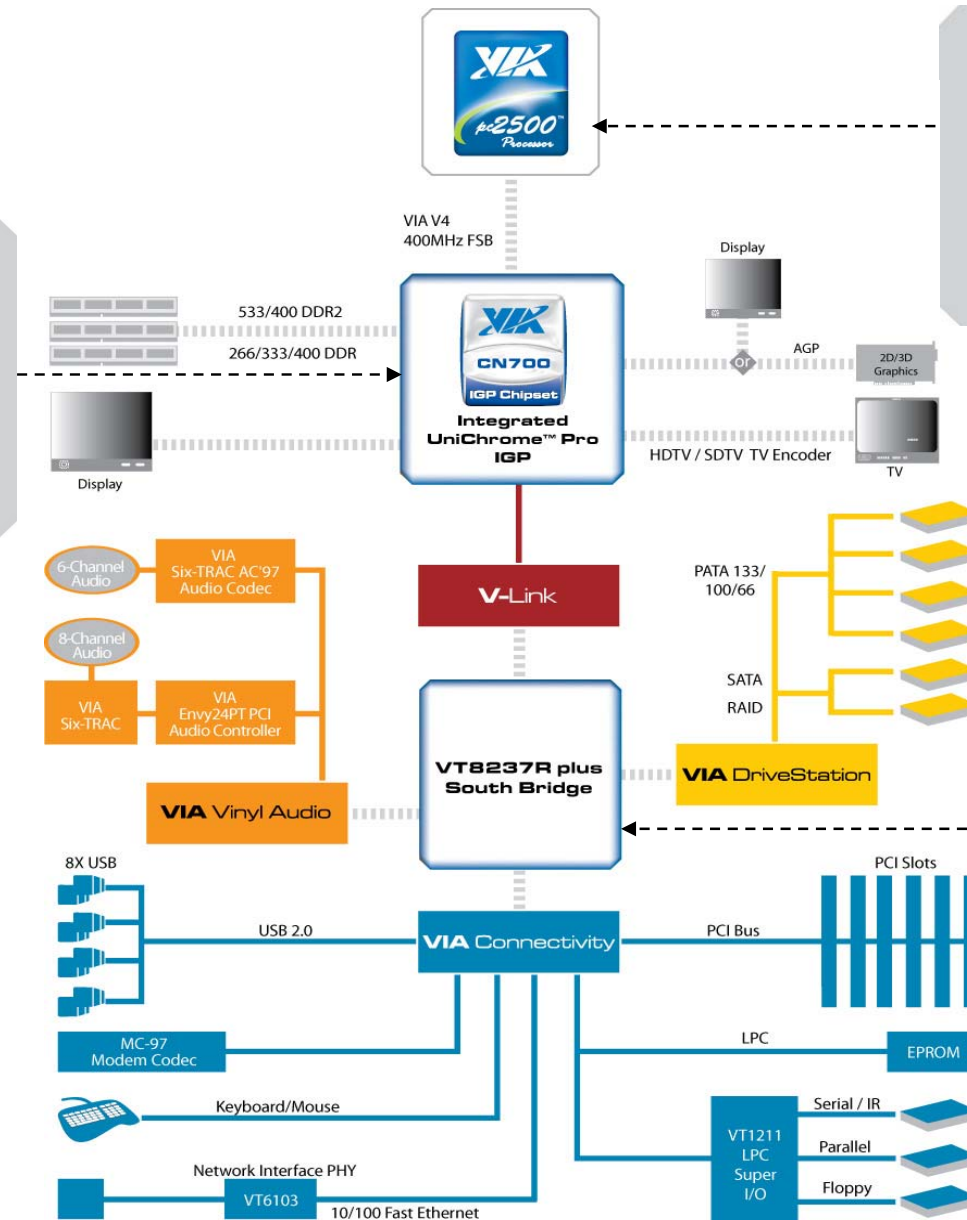
Processor Platform Overview

Chipset

- VIA V4 Bus @400MHz
- Up to 2GB Dual Channel Memory
- DDR400/333/266, DDR2 533/400
- VIA UniChrome™ IGP Graphics Core
- Integrated 2D/3D Graphics
- Integrated MPEG-2 Acceleration
- DuoView™ Multiple Display
- 533MB/s North-South Bridge V-Link

Processor

- Power-Efficient Design
- 90nm Manufacturing
- VIA V4 Bus @400MHz
- Supports SSE2 & SSE3
- ROHS Compliant
- Powerful VIA PadLock Security
- Compact 21mmx21mm nanoBGA2 Package

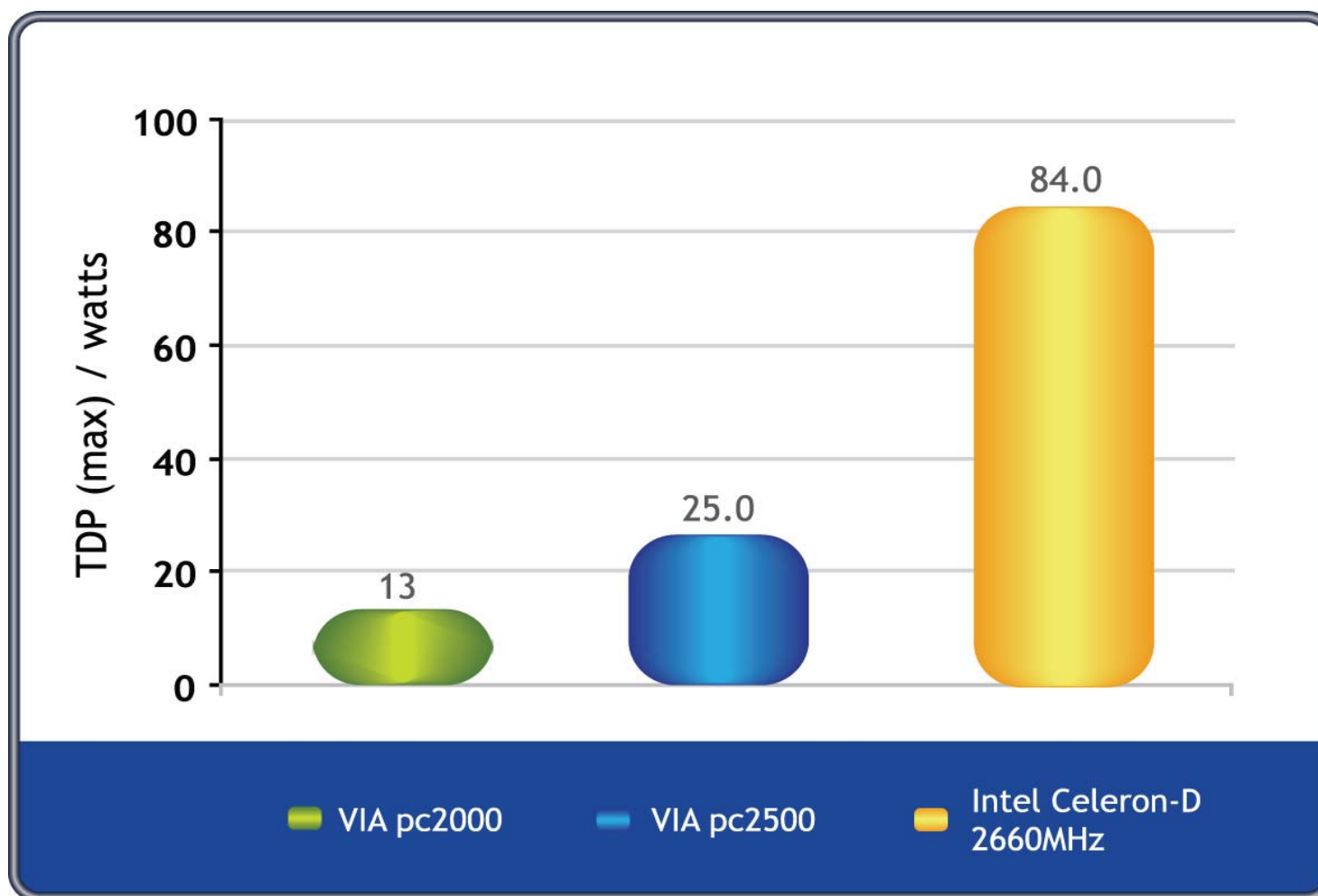


Rich Feature Set

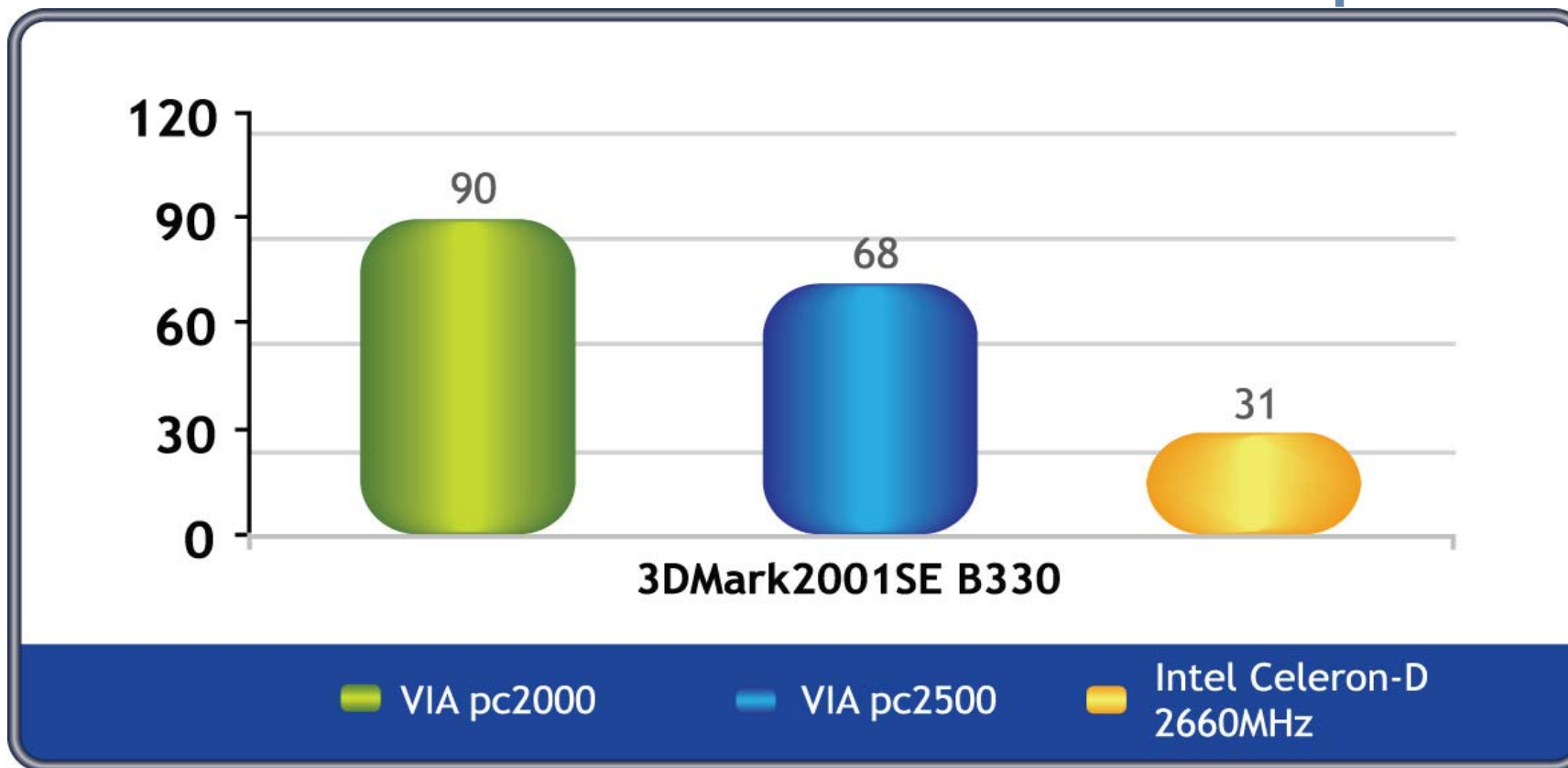
VIA Vinyl™ Multichannel Audio

- Integrated 6-channel audio
 - Support for 8-channel audio
- Supports TV-out for HDTV, SDTV
- Supports External AGP Graphics
- VIA DriveStation™
- Up to 4 ATA-133 devices
 - Up to 2 SATA devices
- VIA Advanced Connectivity
- 8 x USB2.0 ports
 - 6 x PCI slots
 - 10/100 broadband Ethernet

Processor Power Consumption Comparison



Performance Per Watt Comparison



Configuration:

System 1: VIA pc2000 + CN700 +VT823R+ 512MB DDR2 +Maxtor 80GB HDD

System 2: VIA pc2500 + CN700 +VT823R+ 512MB DDR2 +Maxtor 80GB HDD

System 3: Intel Celeron-D 2660MHz+865G+ 512MB DDR333+ Samsung 80GB HDD

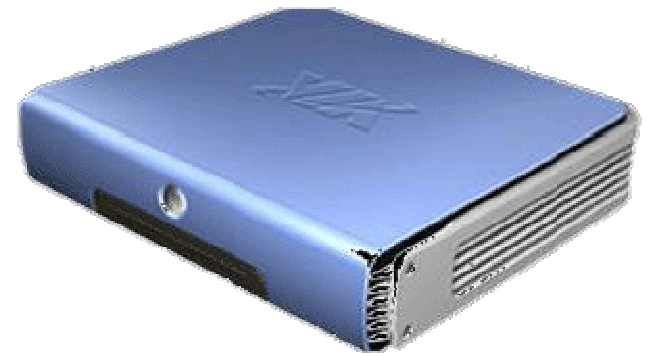
Operating System: WinXP +SP2

VIA pc-1 Reference Designs

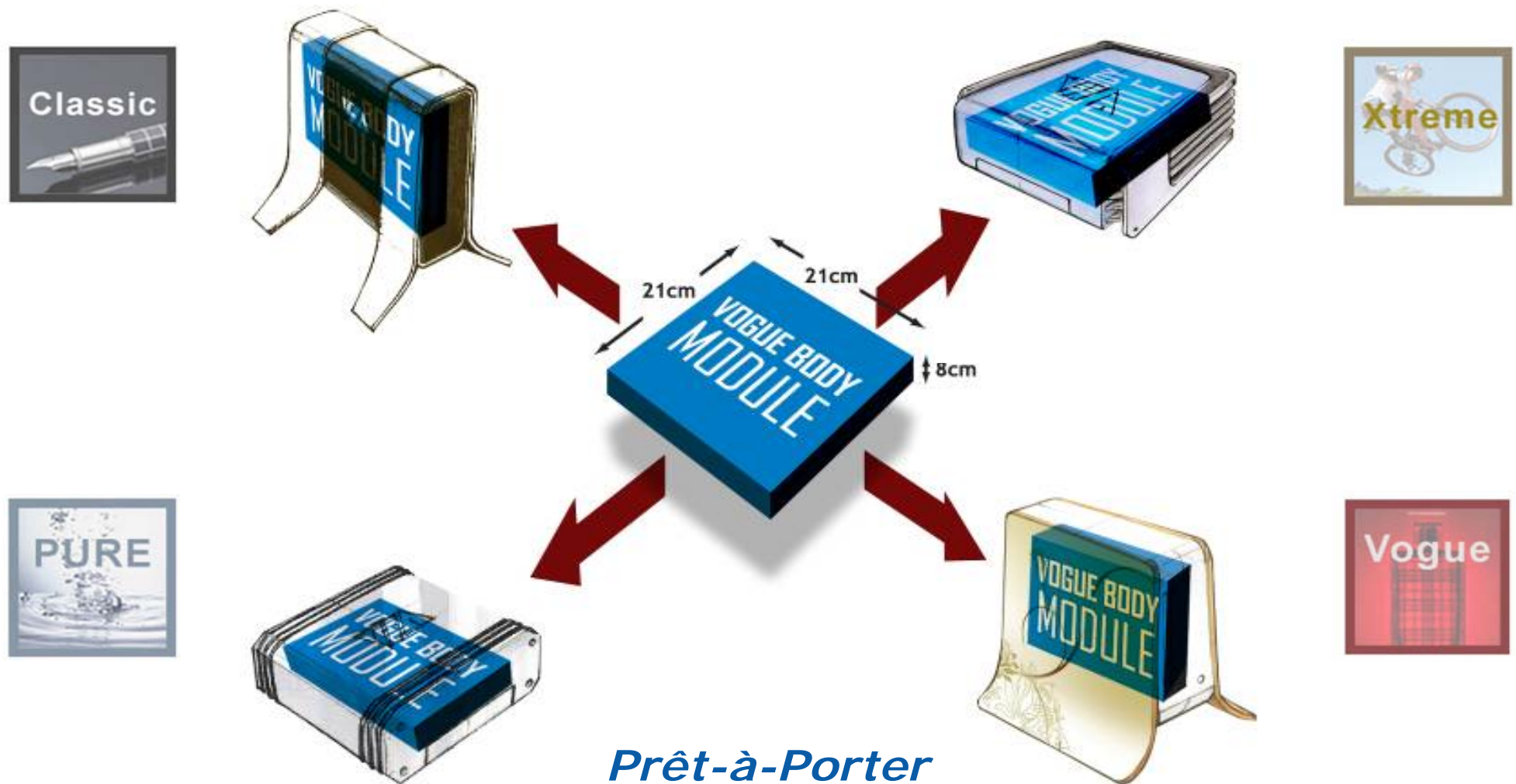
- **Growing range of system reference designs defined to meet most common Emerging Market usage models**
 - VIA Vogue Mini-PC
 - VIA pc-1 Notebook
 - VIA pc-1 Power Saving PC
 - VIA pc-1 Power Saving Client
 - VIA pc-1 PHD Appliances
- **Comprehensive testing & validation process by VIA to ensure highest levels of quality & reliability**
 - VIA pc-1 logo program
- **Available in multiple configuration options**
 - Barebone Kit
 - Complete System

VIA Vogue Mini-PC Reference Designs

- **Ground-breaking design for expanding individual ownership in Emerging Markets**
 - Small enough to fit in most dense living environments
 - Multiple customization options to meet consumers style requirements
- **Compact form factor**
 - Low power
 - Low heat
 - Fanless options
- **Rich computing & digital media performance**
 - Windows Vista™ ready

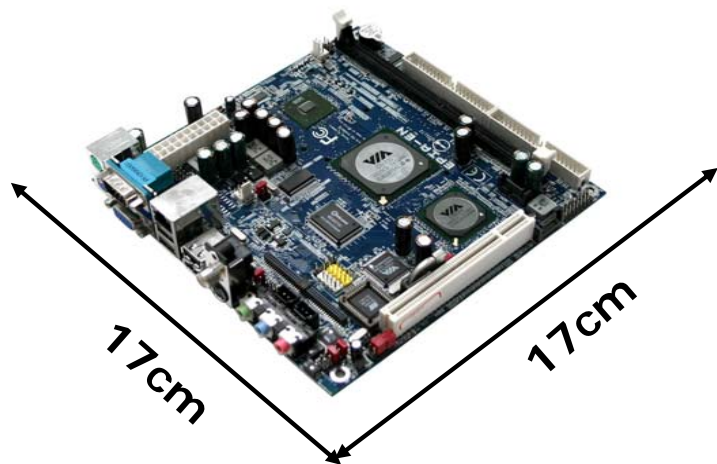


Dressed for Market Success



*Prêt-à-Porter
Wardrobe Outfits*

Vogue Body Module Overview

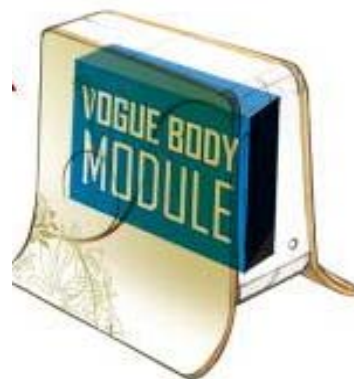


Mini-ITX form factor MB

- ✓ Ultra compact design
- ✓ Rich integration
- ✓ Low Power & Low Heat

Bare Chassis Module

- ✓ Sleek & Compact
- ✓ Slot-in Optical Drive
- ✓ Front & Rear I/O



External Power Adaptor

- ✓ Internal AC-DC Converter
- ✓ Cool & Quiet Operation

Vogue Body Module Benefits

- **Ultra Compact**
 - Feature-packed slim-line design with VIA QuickSlip™ technology* for easy integration of Prêt-à-Porter Wardrobe Outfits
 - **Low Power**
 - Reduces power consumption by over 70% when compared to a standard desktop PC
 - **Quiet Operation**
 - Low power facilitates cool and fanless operation
 - **Media Rich**
 - Microsoft® Windows Vista™ ready
- * VIA QuickSlip technology patent pending*

VIA Vogue Prêt-à-Porter Wardrobe

- Made possible with breakthrough VIA QuickSlip™ technology
 - Industry's first slide system that enables seamless interchange of multiple outfits
- Multiple outfit styles = multiple markets



- Exciting new materials



Leather



Rubber



Plastics



Wood

Classic

aluminium extruded
main housing
and stand



leather
inlet on
the sides



Pure

laser
etched
logo

delicate
transparent
IMD pattern



X-treme



metallic blue
finish

carbon fibre
CD door with
surrounding
chamfer





VIA-logo
embossed
in leather
surface



chrome
side walls



VIA pc-1 Notebook Highlights

- **Low Power Consumption**
 - Longer battery life
 - Fewer recharges
 - Cooler operation
- **Sleek Full-Featured Design**
 - VIA C7-M mobile processor up to 2GHz
 - 14" XGA screen
 - 3D graphics, MPEG-2 acceleration and rich audio
 - Runs all the most popular computing, Internet, & entertainment applications
- **Designed for mobility**
 - Slimline size: 31.5 x 25.5 x 3.5cm
 - Comfortable 2.7kg



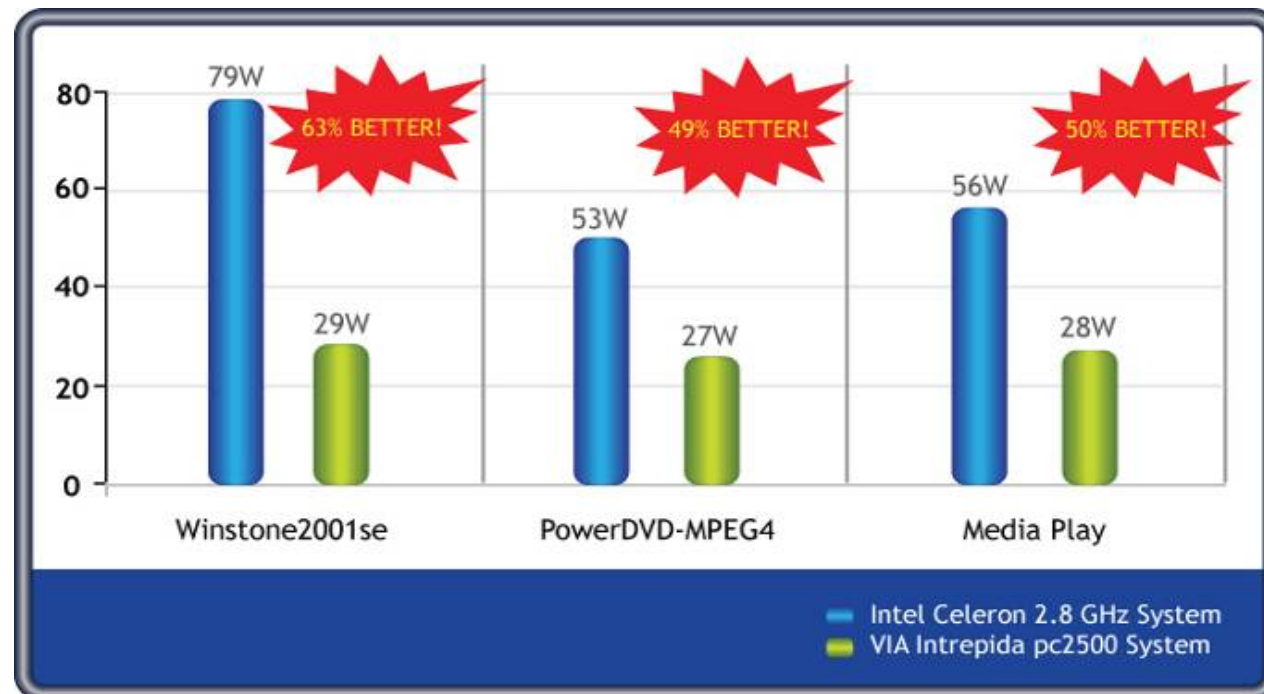
VIA pc-1 Power Saving PC Highlights

- **Low Power Consumption**
 - Lower Running Costs
 - Reduced burden on Emerging Market electricity generation infrastructure
- **Rich Functionality and Performance**
 - Full x86 Compatibility
 - 3D Graphics, MPEG-2 Acceleration, and Multi-Channel Audio
 - Ability to run all the most popular computing, Internet, and entertainment applications
- **Robust Reliability**
 - Rigorous system validation & testing procedures
 - Minimal cooling requirements
 - Ease of maintenance
- **Affordability**
 - Sub \$300 price point for full featured system
 - Low Total Cost of Ownership
- **Scalability**
 - Multiple configuration options to meet different price points



System Power Consumption Comparison

- Significant power benefits for major productivity and entertainment applications



System Configuration:

VIA: VIA pc2500 processor + CN700 + 512MB DDR2 533MHz + 120GB HDD

Intel: Celeron 2.8GHz + i845 + 512MB DDR2 533MHz + 120GB HDD

Annual Savings for Emerging Market Organizations

	VIA pc-1 pc2500 System	Intel Celeron 2.8GHz System	Real Savings with VIA pc-1
Average Annual Power Consumption	1250W	2955W	
Brazil	US\$1505	US\$3560	US\$2055
China	US\$440	US\$1035	US\$595
India	US\$310	US\$735	US\$425
Russia	US\$90	US\$215	US\$125
USA	US\$740	US\$1745	US\$1005

Notes:

1. An Organization is defined as having 100 PC systems
2. Average Daily Power Consumption = 10hrs high CPU load activity + 14hrs Windows idle
3. Average Annual Power calculated as Average Daily Power Consumption x 365 days, based on the following national average electricity costs:

Brazil: USD\$0.165/kWh

China: USD\$ 0.048/kWh

India: USD\$0.034/kWh

Russia: USD\$0.010/kWh

USA: USD\$0.081/kWh

VIA pc-1 Power Saving Client

**Networked
computing
platform that
reduces the Total
Cost of Ownership**



- **Manageability**
 - Centralized server-based management
 - Upgrades made at server level
 - Localized maintenance reduced
- **Security**
 - Single-source Internet access
 - Effective gateway filtering
- **Reliability**
 - Fewer moving parts
- **Scalability**
 - Multiple configuration options
 - Easy deployment of additional units
- **Energy Efficient**
 - Lower energy draw reduces power costs
- **Compact Design**
 - Space saving, easy transportability
- **Rich functionality & performance**
 - Fully x86 compatible

VIA pc-1 PHD Appliance



- **Power**

- Leading performance per watt
- Car battery support for areas with intermittent electricity supplies
- World's longest PC car battery operation of up to 20 hours

- **Heat**

- Fanless design
- Sleek, easily transportable, form factor
- Ultra reliable with minimal moving parts
- Able to withstand extreme temperatures

- **Dust**

- Rugged system chassis
- Dust protection covers
- Able to operate in the harshest environments
- Protection against "digital dust" such as malware & viruses

VIA pc-1 PHD Appliance



- Server & client configurations for multiple Emerging Market scenarios
 - Village Kiosks
 - Internet Cafés
 - Schools
 - SMEs
- Optimized for localized software, applications
 - Multiple language versions
 - IP telephony, videoconferencing & entertainment
 - “Last mile” wireless mesh networking connectivity
- New PV Solar Kit for remote self-powered installations
 - Choice of 20W – 75W solutions from Motech



VIA pc-1: Empowering a Community

- **Geekcorps installation in Bourem Inaly, Mali (far beyond Timbuktu)**

- Community broadcast station
 - Conveys news
 - Broadcasts local business & personal ads
 - Plays weekly movie
- 100% solar-powered
- Replicable installation



VIA pc-1: Empowering a University

- **Installation of VIA pc-1
ICT Center at Thai Nguyen
university, Vietnam**

- To engage & educate local community disadvantaged youth as well as students
- To become a model for universities to assist with ICT4D through education
- Supported by APEC & Cornell University



VIA pc-1: Growing Global Momentum

- **Mumbai, India**

- Establishment of VIA Technology Innovation Center
- Introduction of VIA PHD Appliance
- Establishment of Affordable Computing Labs in cooperation with IIT Mumbai

- **China**

- Successful retail promotion of VIA pc-1 systems in Trustmart superstores in Shanghai, Guangzhou, Chengdu, Xiamen, Hangzhou, and Beijing

- **Cairo, Egypt**

- Successful launch of VIA pc-1 system as part of government "PC for Every Home" program



VIA pc-1: Final Thoughts & Future Directions

- **Growing demand for Affordable Computing solutions in emerging markets**
 - PC, Internet, and Digital Applications, Content & Services the primary wealth generators in the 21st century
- **Not simply a case of providing a low cost PC**
 - Flexible & holistic approach that involves multiple partners required
- **Global battle of ideas & approaches**
 - Opportunities for innovation and economic value add are only just starting to be exploited

Thank you!